

REMARKS

Claims 1-49 have been examined. Applicant has amended Claims 1-13, 15, 16, 18, 20-25, 27-46, and 49 to improve their form and clarify their distinctions over the cited references. Applicant has canceled Claims 17, 26, and 47-48. Applicant has added new Claims 50-56 to more completely protect the subject matter of the invention.

Claims 1-2, 6-7, 10-15, 17, 19, 21, 24-26, 28, 31-32 and 36-38 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 6,157,725 (hereinafter Becker). See, Office Action, pg. 2. Claims 39-49 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. Pub. No. 2002/0067839 (hereinafter Heinrich). See Office Action, pg. 6. Claims 8-9, 20, 22-23, 27 and 33-35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Becker in view of Heinrich. See, Office Action, pg. 9. Claims 3-5 were rejected under 35 U.S.C. 103(a) as being unpatentable over Becker in view of U.S. Pat. No. 5,661,811 (hereinafter Huemann). See, Office Action, pg. 11. Claims 16 and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Becker and Heinrich in view of Huemann. See Office Action, pg. 12-13. Claims 29-30 were rejected under 35 U.S.C. 103(a) as being unpatentable over Becker in view of U.S. Pat. No. 7,039,197 (hereinafter Venkatesh). See Office Action, pg. 13.

Reconsideration and allowance of the now pending claims is respectfully requested in view of the amendments to the claims and the following comments.

A. Rejections based on 35 U.S.C. §102

It is axiomatic that a claim is not anticipated, 35 U.S.C. §102, unless a single prior art reference teaches the entire recited subject matter of the claim. The invention of this patent application provides a further and patentable improvement over the systems disclosed in Becker and Heinrich, and is patentably distinguished over Becker and Heinrich by the novel subject matter recited in the amended claims, as set forth below.

1. Claims 1-11

The rejection states that Claim 1 is anticipated by Becker. See, Office Action 2. However, amended Claim 1 recites, for example, an "amplifier comprising a respective balance setting for each audio source" and a "user interface for independently setting each respective balance setting of each respective audio source . . . to adjust the balance settings based upon a user selected audio source." Applicant respectfully submits that the recited subject matter of the amended claim 1 patentably distinguishes Claims 1-11 over Becker and that Becker does not anticipate amended Claim 1. As a result, Claim 1 and dependent claims 2-11 are in condition for allowance at least for the reason that Claim 1 is in condition for allowance.

In addition, Claims 2, 6-7, and 10 are further distinguished over Becker independent of their dependency from Claim 1. Amended Claim 2 recites, for example, that "the balance setting is configured to output an acoustic driver information message receivable from the navigation system to a speaker positioned near a driver of the vehicle." Amended Claim 6 recites that "the control unit includes an audio manager module operable to control the balance setting of the amplifier connected to the speakers based on the respective balance setting for each audio source." Amended Claim 7 recites, "the control unit includes a means for adjustment operable to allow a user to independently adjust a balance setting of each of the respective audio sources." Amended Claim 10 recites "the control unit is configured to store the respective balance setting for each respective audio source." Thus, for at least these additional reasons, the amended claims 2, 6-7 and 10 are in allowable form.

2. Claims 12-16 and 18-23

The rejection states that Claim 12 is anticipated by Becker. See, Office Action 2. Amended Claim 12 recites, for example, a "computer readable program code to receive a respective audio source balance setting for a plurality of speakers for each respective audio source from a user interface". Applicant respectfully submits that the recited subject matter of amended Claim 12 patentably distinguishes Claims 12-16 and 18-23 over Becker and that Becker does not anticipate amended Claim 12. As a result, Claim 12 and respective dependent Claims 13-16 and 18-23 are in condition for allowance.

Applicant respectfully submits that the amended Claims 13, 15, 16, 18, 20, and 22 are further distinguished over Becker independent of their dependency from Claim 12. For example, Amended Claim 13 recites "computer readable program code to audibly reproduce the audio output signals on the speakers based upon the respective balance setting of each of the audio sources." In addition, Claim 15 recites "at least one of the plurality of audio sources comprises a navigation system, including a navigation system balance setting." Claim 16 includes the further limitations of both "computer readable program code to generate the acoustic driver information message...based on the navigation system balance setting" and "to reduce the audio output signals from audio sources other than a navigation system...in response to reproduction of the acoustic driver information message." Claim 20 further recites the further limitation "a program code . . . to display the respective audio source balance setting." Finally, Claim 22 recites "a program code to set the balance setting for each audio source based on a respective passenger category." Applicant respectfully submits for at least these further reasons the amended Claims 13, 15, 16, 18, 20, and 22 are not anticipated by Becker and as a result are in form for allowance

3. Claims 24-25 and 27-31

The rejection recites that Claim 24 is anticipated by Becker. See, Office Action 2. Amended Claim 24 recites, for example, a head unit that "is operable to generate a user interface configured to receive an audio source balance setting for each respective audio source, and...to store each respective audio source balance setting for each respective audio source." Applicant respectfully submits that the recited subject matter of amended Claim 24 patentably distinguishes Claims 24, 25, and 27-31 over Becker and that Becker does not anticipate the amended Claim 24. As a result, Claims 24 and the respective dependent Claims 25 and 27-31 are in condition for allowance.

Applicant respectfully submits that amended Claims 28 and 29 are further patentably distinguished over Becker. Illustratively, amended Claim 28 recites the further limitation of "the audio source balance setting for each respective audio source." Moreover, amended Claim 29 is not anticipated by Becker because Claim 29 recites the additional limitations of both "the audio source balance setting associated with the navigation system is configured to set the balance setting of the speakers" and "the

amplifier is further configured to reduce the output of the audio sources in the respective speaker position nearest the driver...in response to generation of the acoustic driver information message." As a result, amended Claims 28 and 29 and the dependent Claim 30 are also in form for allowance.

4. Claims 32-38

The rejection recites that Claim 32 is anticipated by Becker. See, Office Action 2. Amended Claim 32 recites, for example, "generating a plurality of audio output signals from a plurality of audio sources" and "receiving selected balance settings for selected audio sources connected to the amplifier", and "storing the selected balance settings received from the head unit as the respective audio source balance settings for the selected audio sources." Applicant respectfully submits that the recited subject matter of amended Claim 32 patentably distinguishes Claims 32-36 over Becker and that the Becker does not anticipate the amended Claim 32. As a result, Claim 32 and respective dependent Claims 33-36 are in form for allowance.

Furthermore, Claims 34-35 and 37 are further patentably distinguished over Becker by recitation of additional limitations in addition to their being in allowable form due to dependence from an allowable Claim 32. For example, as amended, Claim 34 further recites, "the graphical user interface includes a vertical and horizontal scroll bar for adjusting the balance setting." Claim 35 is not anticipated by Becker because Claim 35 includes the added limitation of "a touch screen display." Furthermore, Claim 37 is not anticipated by Becker because Claim 37 includes the further limitation of "an audio source balance heading associated with the navigation system." As a result, at least for these additional reasons, amended Claims 34-35 and 37 are not anticipated by Becker in addition to being in allowable form due to their respective dependency from the allowable Claim 32.

5. Claims 39-42

The rejection recites that Claim 39 is anticipated by Becker. See, Office Action 2. The rejection recites that Claim 39 is anticipated by Heinrich as disclosed in Figs. 1-2, 4-8 and paragraphs 79, 97-101. See, pg. 6 Office Action, para. 4. Amended Claim 39 recites, for example, "a plurality of audio sources connected to an amplifier operably coupled to a plurality of speakers." Moreover, Claim 39 also recites "a passenger

category selection module located on the control unit and configured to receive a user selected passenger category from a plurality of passenger categories and each passenger category includes a respective balance setting for each of audio source". Unlike Claim 39, Heinrich does not disclose an amplifier. Furthermore, Heinrich does not disclose either a passenger category selection module, or each passenger category including a respective balance setting for each of a plurality of audio sources, as recited in Claim 39. In addition, Heinrich does not disclose a user interface module configured to adjust a balance setting of the plurality of speakers based on the user selected passenger category, as recited in Claim 39. As a result, Heinrich does not teach each recitation of Claim 39. Therefore, Claim 39 is not anticipated by Heinrich and Claim 39 and the respective dependent Claims 40-42 are in condition for allowance.

In addition, amended Claim 41 is further patentably distinguishable over Heinrich because Claim 41 includes the further limitation "the passenger category selection module is operable to generate a balance setting graphical user interface configured to receive a balance setting for each respective audio source for each respective passenger category." Furthermore, Claim 42 is further patentably distinguishable over Heinrich because Claim 42 includes the further limitation of "where the passenger categories include a driver category, a co-driver category, a backseat passenger category, and a child category," because Heinrich does not describe either passenger categories or the claimed categories. As a result, in addition to being in form for allowance due to dependency from the allowable Claim 39, amended Claims 41-42 are in form for allowance because Heinrich does not disclose each and every limitation of the claims at issue.

6. Claims 43-45

The rejection recites that Heinrich Figs. 1-2, and paragraphs 39, 97-101 disclose Claim 43. See, Office Action top of page 7. Amended Claim 43 recites, for example, "receiving a selected passenger category selected from a plurality of passenger categories where the passenger category includes a respective balance setting for each of a plurality of audio sources." Unlike amended Claim 43 and contrary to the Examiner's statement, Heinrich does not disclose, and Figs. 1 and 2 do not show, receiving a selected passenger category, a plurality of passenger categories, or the

passenger category including a respective setting for each of a plurality of audio sources. Moreover, Heinrich does not disclose "receiving an adjustment for the balance setting of at least one of the audio sources for the selected passenger category", as recited in Claim 43. As a result, Heinrich does not show each and every limitation of Claim 43. Therefore, amended Claim 43 is not anticipated by Heinrich and Claim 43 and the respective dependent Claims 44-45 are in condition for allowance.

In addition, Claims 44 and 45 are further patentably distinguished over Heinrich by recitation of additional limitations in addition to their being in allowable form due to dependence from an allowable Claim 43. For example, amended Claim 44 is patentably distinguished over Heinrich by its recitation of "generating a graphical user interface on the passenger category selection module to display a plurality of passenger categories, and to receive the selected passenger category." Moreover, Claim 45 is patentably distinguishable over Heinrich because Claim 45 includes a recitation of "the plurality of passenger categories." As a result, both Claims 44 and 45 are in allowable form by virtue of their own respective additional limitations, in addition to being in allowable form due to dependency from the allowable Claim 43.

7. Claim 46

The rejection recites that Claim 46 is disclosed by Heinrich's Figs. 1-2 and paragraphs 79, 90, 97-101. Amended Claim 46 recites, for example, "retrieving a set of menu entries associated with the stored menu where each of the menu entries represent at least one balance setting associated with each one of a plurality of audio sources for a selected passenger category," as well as, "displaying at least one of the balance settings associated with each audio source for the selected passenger category on the display and selection device." Heinrich fails to disclose a selected passenger category for at least one balance setting associated with each one of a plurality of audio sources for a selected passenger category. Moreover, Heinrich fails to disclose displaying at least one of the balance setting associated with each audio source for the selected passenger category. As a result Heinrich does not show each and every limitation of Claim 46. Thus, amended Claim 46 is not anticipated by Heinrich and Claim 46 and the respective dependent Claim 49 are in allowable condition.

In addition, Claim 49 is further patentably distinguished over Heinrich by its own recitation of "reproducing audio output signals on a plurality of speakers based on the respective balance settings provided for each audio source." As a result, Claim 49 is in allowable form by virtue of its own recitation of additional limitations, as well as its dependency upon the allowable Claim 46.

B. Rejections based on 35 U.S.C. § 103

Among the three basic criteria that must be met to establish a *prima facie* case of obviousness is that the prior art references, when combined, must teach or suggest all of the claim limitations of a rejected claim. [See Section 2124 MPEP, Rev 3, August 2005, page 2100-134] As set forth below, the references cited by the Examiner fail to teach or suggest all of the limitations of the claims rejected as obvious by the Examiner and as a result of the cited references do not meet this criteria, not to mention the other criteria, and the subject matters of these rejected claims were not obvious 35 U.S.C. §103.

1. Claims 3-5

Amended Claims 3-5 were rejected as being unpatentable over Becker in view of Huemann. The rejection recites that "Becker does not clearly teach that the audio system of the audio output signals from other audio sources are muted from the speaker position nearest the driver while the acoustic driver information message is being played on the speaker positioned nearest the driver." See, Office Action, pg. 11. However, the rejection further recites that "Huemann teaches that the audio system (Se [sic] fig. 2) of the audio output signals from the other audio sources are muted while the acoustical river information message (such as, the driver selects AM/FM and does not select other source) is being played on the speaker positioned nearest the driver" (see col. 2, line 20 - col. 3, line 67).

Claims 3-5 are in form for allowance at least for the reason that amended Claim 1 is in form for allowance. In addition, Amended Claim 3 recites that "the amplifier is configured to mute audio output signals from other audio sources from the speaker nearest the driver in response to receipt of the acoustic driver information message receivable from a navigation system," which is not disclosed, taught or suggested by the

combination of Becker and Huemann. As a result, the combination of Huemann and Becker does not establish a *prima facie* case for obviousness because the recited combination does not teach, suggest or disclose each and every limitation of Claim 3. As a result, as amended, Claim 3 is in condition for allowance. In addition, because Claim 3 is in allowable form, the respective dependent Claims 4 and 5 are also in allowable form.

2. Claims 8-9

In rejecting claims 8 and 9, the Examiner states: "Becher does not clearly teach that the audio system of the control unit includes a user interface module operable to allow a user to adjust the balance setting of the audio sources using a touch-screen display; and the audio system of the user interface module generates a balance setting graphical user interface on the touch-screen display that allows a user to adjust the balance setting.

However, Heinrich teaches that the audio system of the control unit (see figs 1-2) includes a user interface module operable to allow a user to adjust the balance setting of the audio sources using a touch-screen display (see page 3 [0097] - [0101]); and the audio system of the user interface module generates a balance setting graphical user interface on the touch-screen display that allows a user to adjust the balance setting (see page 3 [0097] - [0101]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Heinrich into Becker to provide a more convenient entertainment audio system to the user."

Amended Claim 8 recites "a user interface module operable to receive a user adjustment of the respective balance setting of the user selected audio source for each respective audio source," which is not disclosed, taught or suggested by the combination of Becker and Heinrich. Contrary to the Examiner's statement, Heinrich does not teach a user interface module operable to allow a user to adjust the balance settings of user selected audio sources for each respective audio source. As a result, the rejection fails to establish *prima facie* obviousness of amended Claim 8 because the recited combination does not disclose, teach or suggest each and every limitation of Claim 8. Moreover, Claim 8 is in allowable form because amended Claim 1 is in form

for allowance. In addition, Claim 9 is in form for allowance at least for the reason that Claim 8 is in form for allowance.

3. Claims 16 and 18

Claims 16-18 were rejected as being unpatentable over Becker and Heinrich in view of Huemann. The Examiner states "Becker and Heinrich does [sic] not clearly teach the balance setting generates the acoustic driver information message in the speaker nearest a driver in the vehicle" and that "Huemann teaches that the balance setting (see fig. 2) generates the acoustic information message (such as AM/FM) in a speaker nearest a driver of the vehicle". See, Office Action, pg. 12-13.

Amended Claim 16 recites both "computer readable program code to generate the acoustic driver information message receivable from a navigation system in a speaker nearest a driver of the vehicle based on the navigation system balance setting" and "computer recordable code to reduce the audio output signal from the audio sources other than the navigation system in the speaker nearest the driver in response to reproduction of the acoustic driver information message."

Huemann does not disclose an "acoustic driver message receivable from a navigation system." Moreover, unlike Claim 16, the cited references do not disclose, teach or suggest "computer readable code to generate the acoustic driver information message . . . based on the navigation system balance setting." Furthermore, recited references do not disclose, teach or suggest "computer readable code to reduce the audio output signals from audio sources other than the navigation system in response to reproduction of the acoustic driver information message," as recited in Claim 16. As a result, the recited combination of Huemann with Becker and/or Heinrich does not disclose each and every limitation in Claim 16. Moreover, Claim 16 is in allowable form because amended Claim 12 is in allowable form. Therefore Applicant respectfully submits that amended Claim 16 is not prima facie obvious and claim 16 and dependent Claim 18 are in allowable condition.

4. Claims 20-23

In rejecting claims 20 and 22-23, the Examiner states "Becker does not clearly teach the computer program product further comprising computer readable program

code for generating a graphical user interface on a display capable of allowing the user to adjust the balance setting; and the computer program product of further comprising computer readable program code for setting the balance setting for each audio source based on a passenger category; and the computer program product of the passenger category may include a driver, a co-driver, at least one child, or at least one adult passenger.

However, Heinrich teaches the computer program product further comprising computer readable program code for generating a graphical user interface on a display capable of allowing the user to adjust the balance setting (see figs 1-2 and page 3 [0097] - [0101]); and the computer program product of further comprising computer readable program code for setting the balance setting for each audio source based on a passenger category (see figs. 1-2); and the computer program product of the passenger category may include a driver, a co-driver, at least one child, or at least one adult passenger (see figs 1-2 and page 3 [0097] - [0101]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Heinrich into Becker to provide a more convenient entertainment audio system to the user."

Amended Claim 20 recites "a program code to generate a graphical user interface on a display to display the respective audio source balance setting for each for each respective audio source," which is not disclosed, taught or suggested by the combination of Becker and Heinrich. As a result, the rejection fails to establish *prima facie* obviousness because the recited combination does not disclose, teach or suggest each limitation of Claim 20. Furthermore, amended Claim 20 is in allowable form because amended Claim 12 is in allowable form. Thus, amended Claims 20 and 21 are in form for allowance at least for the reason that Claim 20 is in form for allowance.

Furthermore, amended Claim 22 further recites "a program code to set the balance setting for each audio source based on a respective passenger category," (emphasis added), which is not disclosed, taught or suggested by the combination of Becker and Heinrich. As a result, the rejection fails to establish *prima facie* obviousness because the recited combination does not disclose, teach or suggest each limitation of amended Claim 22. Moreover, amended Claim 22 is in allowable form because

amended Claim 12 is in allowable form. Thus, amended Claims 22 and 23 are in form for allowance at least for the reason that amended Claim 22 is in form for allowance.

5. Claim 27

In rejecting claim 2, the Examiner states that "Becker does not clearly teach that the audio system of the user interface is generated on a touch screen display," that "Heinrich teaches that the audio system of the user interface is generated on a touch screen display" and that it would have been obvious to combine Heinrich into Becker. However, amended Claim 27 recites "a touch-screen display configured to receive an audio source balance setting for each respective audio source," which is not disclosed, taught or suggested by the combination of Becker and Heinrich. As a result, the rejection fails to establish *prima facie* obviousness because the recited combination does not disclose, teach or suggest each limitation of amended Claim 27. Moreover, Claim 27 is in allowable form because amended Claim 24 is in allowable form. Thus, amended Claim 27 is in form for allowance.

6. Claims 29-30

In rejecting claims 29 and 30, the Examiner states, "Claims 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker (USPAT. 6,157,725) in view of Venkatesh (US PAT. 7,039,197).

Consider claim 29, Becker teaches that the audio system of one audio source comprises a navigation system (see fig. 1, (11)) for generating an acoustic driver information message and the balance setting is set to audibly reproduce the acoustic driver information message in a respective speaker positioned near a driver of the vehicle inherently (see col. 7 line 43-col. 8 line 67); but Becker does not clearly teach that the balance setting is set to audibly reproduce the acoustic driver information message only in a respective speaker positioned near a driver of the vehicle.

However, Venkatesh teaches that the balance setting (see figs. 26-27) is set to audibly reproduce the acoustic driver information message (such as a recording voice memo) only in a respective speaker (front speaker) positioned near a driver of the vehicle (see col. 28 line 51-col. 30 line 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Vankatesh into the teaching of Becker to provide more privacy communication system to the driver and the back seat passenger.

Consider claim 30 Venkatesh teaches that the audio system (see figs. 26-27) of other audio sources continue in a predetermined number of other speakers uninterrupted (such as turn off the rear speakers) by the acoustic driver information message."

Amended Claim 29 recites both "an audio source balance setting associated with the navigation system" and "the amplifier is further configured to reduce the output of other audio sources in the respective speaker positioned nearest the driver of the vehicle in response to generation of the acoustic driver information message," which the combination of Becker in view of Venkatesh does not disclose, teach or suggest. As a result, the rejection fails to establish prima facie obviousness, and claim 29 recites patentable subject matter. Moreover, amended Claim 29 is in allowable form because amended Claim 24 is in allowable form. As a result, amended Claim 29 is in allowable form and Claim 30, which depends from Claim 29, is also in allowable form.

7. Claims 33-35

In rejecting claims 33-35 the Examiner states, "Becker does not clearly teach the method of the balance setting of each audio source is adjusted by an occupant of the vehicle with a graphical user interface.

However, Heinrich teaches the method of the balance setting of each audio source is adjusted by an occupant of the vehicle with a graphical user interface (see figs 1-2 and page 3 [0097]-[0101]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Heinrich into Becker to provide a more convenient entertainment audio system to the user.

Consider claims 34-35 Heinrich teaches that the method of the graphical user interface includes a vertical and horizontal scroll bar (such as, fade for adjusting the balance setting (see page 3 [0079]); and the method of the graphical user interface is

generated on a touch-screen display in the vehicle (see page 3 [0072] and see the discussion above 33)."

Amended Claim 33 recites that the "head unit includes a graphical user interface configured to receive a balance setting of the selected audio source from ~~adjusted by an~~ occupant of the vehicle, where the selected audio source is associated with a respective audio source balance setting," which is not disclosed, taught or suggested by the combination of Becker and Heinrich. Moreover, neither Becker nor Heinrich disclose the recitation "a user interface includes a vertical and horizontal bar for adjusting the balance setting," as in Claim 34. As a result, the rejections fail to establish *prima facie* obviousness because the recited combination does not disclose, teach or suggest each and every limitation of amended Claims 33 and 34. Moreover, as amended, Claims 33-35 are in allowable form because amended Claim 32 is in allowable form.

Reference Not Relied Upon

Applicant has reviewed Koizumi, made of record but not relied upon by the Examiner, and respectfully submits that the claims of the application are patentable over Koizumi, alone and in combination with the other cited references.

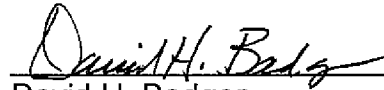
New Claims

Applicant respectfully requests consideration of the new dependent claims 50-56 which present further novel combinations of the subject matter of the invention, which, it is submitted and patentably distinguished from the cited references taken singly or in combination.

Conclusion

The Applicant respectfully submits that the claims of this application are patentably distinguished from the cited references and in condition for allowance. Should the Examiner feel that a telephone conference would be helpful; the Examiner is respectfully invited to telephone the undersigned attorney.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "David H. Badger", written over a horizontal line.

David H. Badger
Registration No. 22,597
Attorney for Applicant(s)

BRINKS HOFER GILSON & LIONE
CUSTOMER NO. 27879
(317) 636-0886